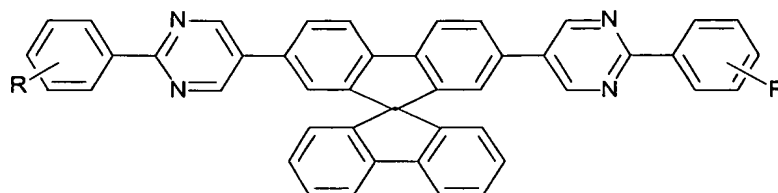


WHAT IS CLAIMED IS:

1. A fluorene-based pyrimidine-containing conjugated oligomer used in organic light-emitting device is described with its chemical formula as follows:



5 Wherein, R represents $-\text{OC}_n\text{H}_{2n+1}$ ($n=1\sim 4$), $-\text{C}_4\text{H}_9$, $-\text{C}_6\text{H}_5$ or H.

2. The fluorene-based pyrimidine-containing conjugated oligomer used in organic light-emitting device as claimed in Claim 1, wherein, R relates to a 4-n-butyoxy group.

3. The fluorene-based pyrimidine-containing conjugated oligomer
10 used in organic light-emitting device as claimed in Claim 1, wherein, R relates to a 4-tertiary butyl group.

4. The fluorene-based pyrimidine-containing conjugated oligomer used in organic light-emitting device as claimed in Claim 1, wherein, R relates to a 4-methoxyl group.

15 5. The fluorene-based pyrimidine-containing conjugated oligomer used in organic light-emitting device as claimed in Claim 1, wherein, R relates to a 3-methoxyl group.

6. The fluorene-based pyrimidine-containing conjugated oligomer used in organic light-emitting device as claimed in Claim 1, wherein, the
20 fluorene-based pyrimidine-containing conjugated oligomer is applied as a component of an electron transport layer of an OLED.

7. The fluorene-based pyrimidine-containing conjugated oligomer used in organic light-emitting device as claimed in Claim 1, wherein, the fluorene-based pyrimidine-containing conjugated oligomer is applied as the electron transport layer or a part of the electron transport layer of an OLED.

8. The fluorene-based pyrimidine-containing conjugated oligomer used in organic light-emitting device as claimed in Claim 1, wherein, the fluorene-based pyrimidine-containing conjugated oligomer is applied as the emission layer or a part of the emission transport layer of an OLED.

9. The fluorene-based pyrimidine-containing conjugated oligomer used in organic light-emitting device as claimed in Claim 1, wherein, the fluorene-based pyrimidine-containing conjugated oligomer is applied as the electron-transport emitting layer or a part of the electron-transport emitting layer of an OLED.

10. The fluorene-based pyrimidine-containing conjugated oligomer used in organic light-emitting device as claimed in Claim 1, wherein, the fluorene-based pyrimidine-containing conjugated oligomer is applied at the same time as the electron transport layer and the electron-transport emitting layer of an OLED.

11. The fluorene-based pyrimidine-containing conjugated oligomer used in organic light-emitting device as claimed in Claim 1, wherein, the fluorene-based pyrimidine-containing conjugated oligomer is applied as the hole-blocking layer or a part of the hole-blocking layer of an OLED.

12. The fluorene-based pyrimidine-containing conjugated oligomer

used in organic light-emitting device as claimed in Claim 8, wherein,
dopant is provided in the emitting layer to upgrade light-emitting
efficiency and regulate emitting color of the device.

13. The fluorene-based pyrimidine-containing conjugated oligomer
5 used in organic light-emitting device as claimed in Claim 9, wherein,
dopant is provided in the emitting layer to upgrade light-emitting
efficiency and regulate emitting color of the device.

14. The fluorene-based pyrimidine-containing conjugated oligomer
used in organic light-emitting device as claimed in Claim 1, wherein,
10 dopant is provided in the emitting layer to upgrade light-emitting
efficiency and regulate emitting color of the device.